

SAM: 0.12 pm FWHM bandpass

20 pixels in FWHM

800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass

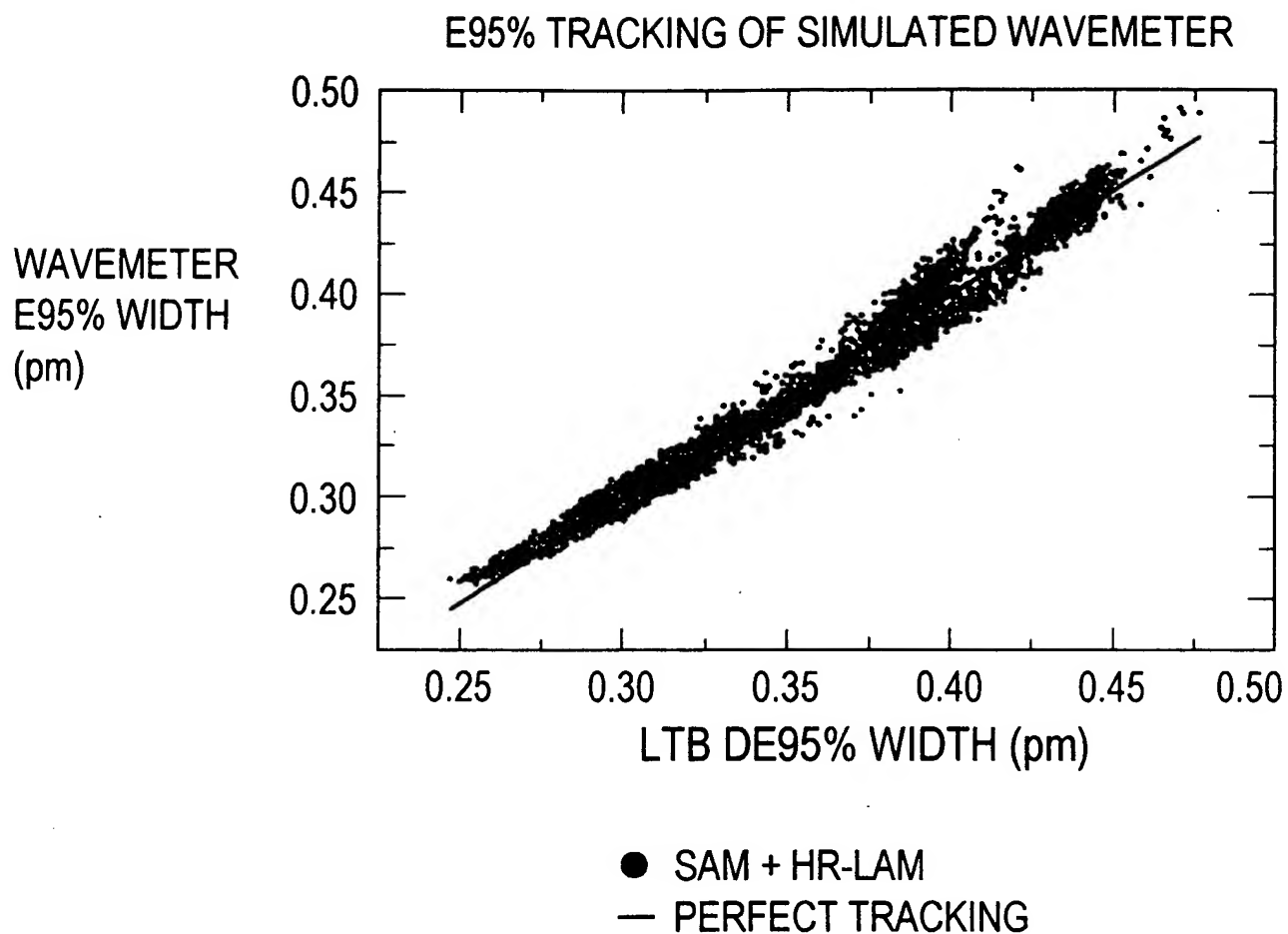
20 pixels in FWHM

800 pixel inspection range

6 pilot XLA-130 lasers

4814 spectra from Bandwidth Resonance scans

FIG. 8

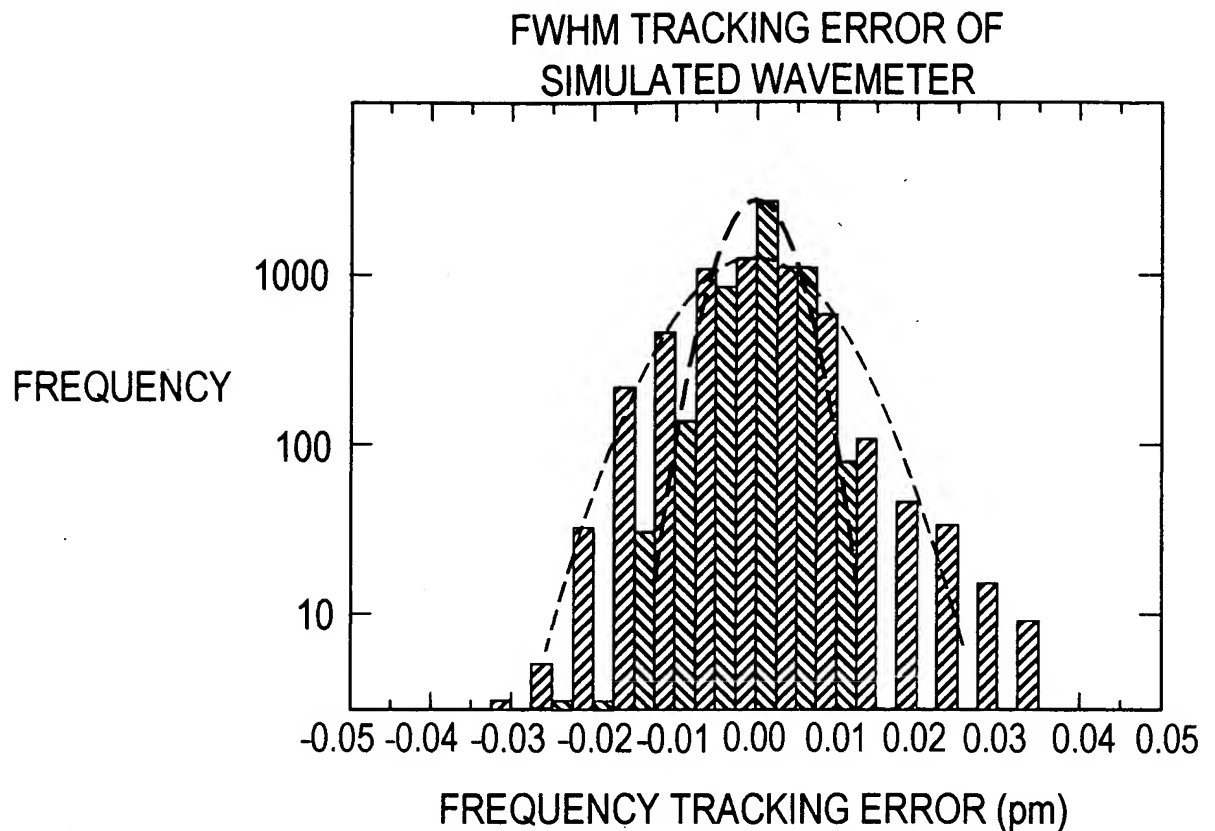


SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 7



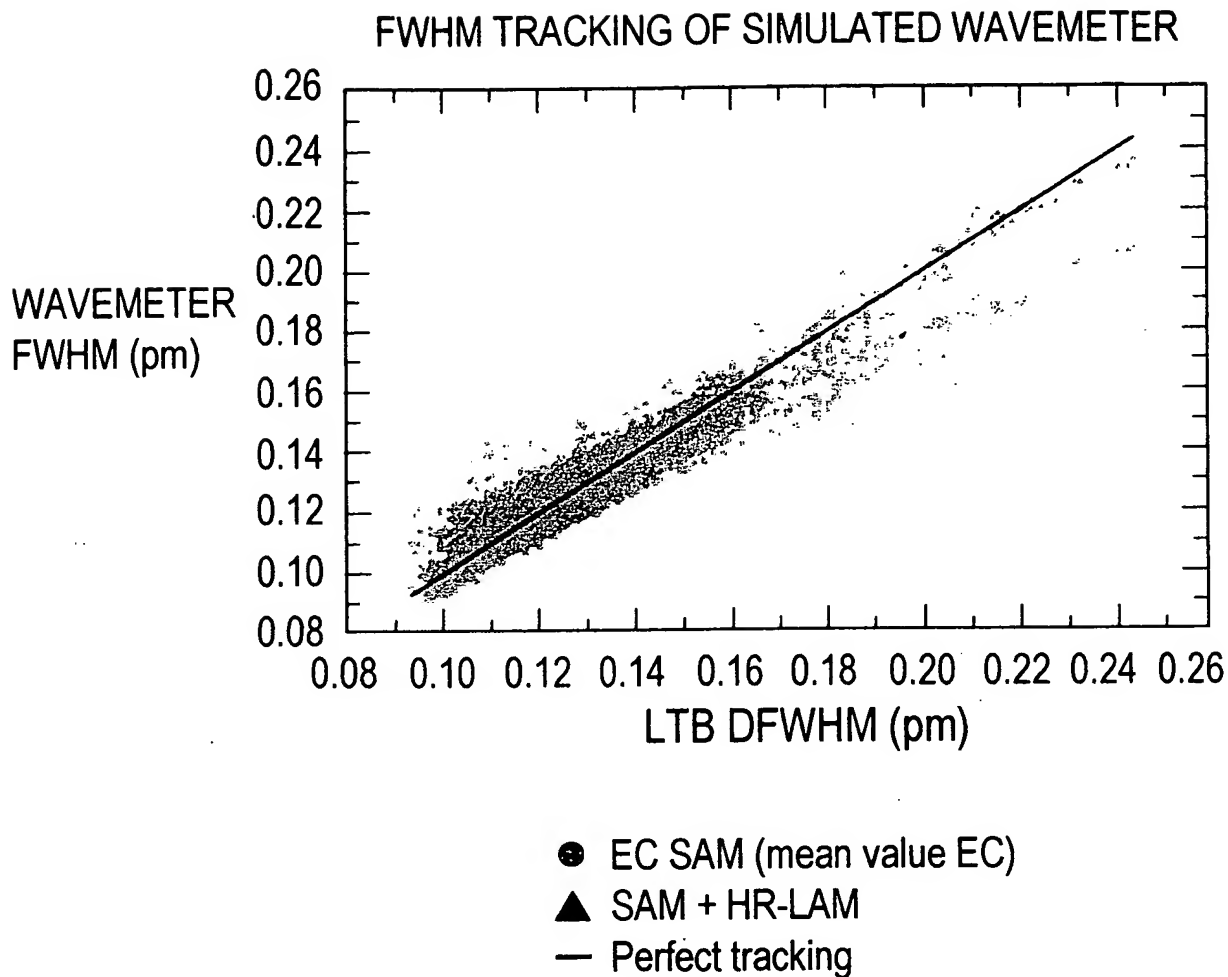
▨ TRACKING RESIDUALS EC SAM VARIANCE = 7.9 fm
▩ TRACKING RESIDUALS SAM + HR LAM VARIANCE = 3.9 fm

SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 6



SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 5

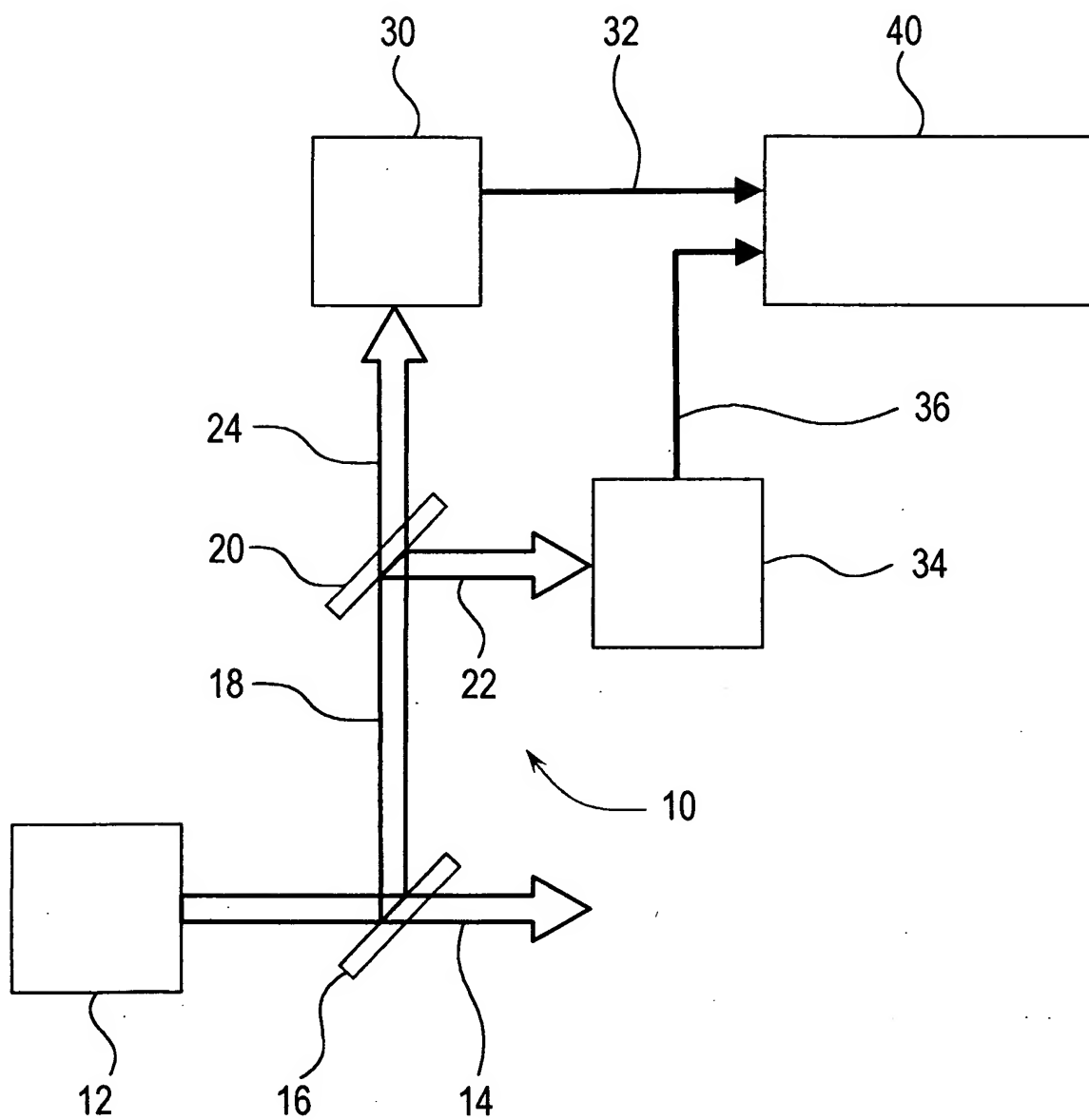
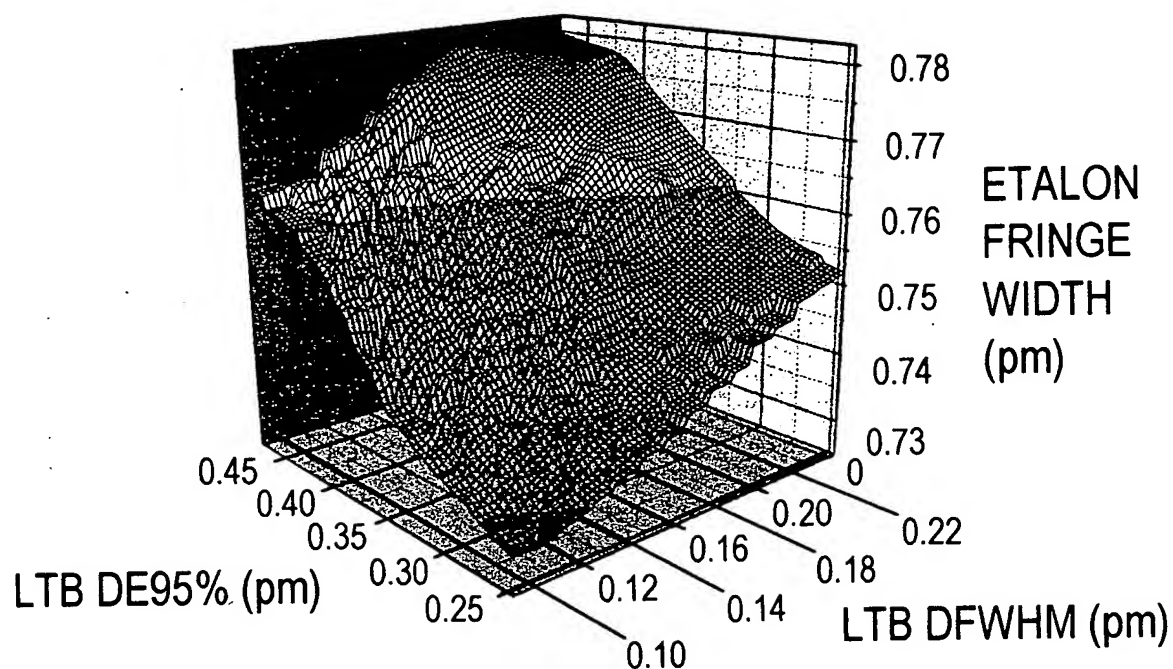


FIG. 4

HiRes LAM Tracking Simulation 0.7 pm/20 pixel Bandpass



Data: Data5_HRLAM

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 2.0666\text{E-}6$

$R^2 = 0.97507$

A 0.14483 ± 0.000114

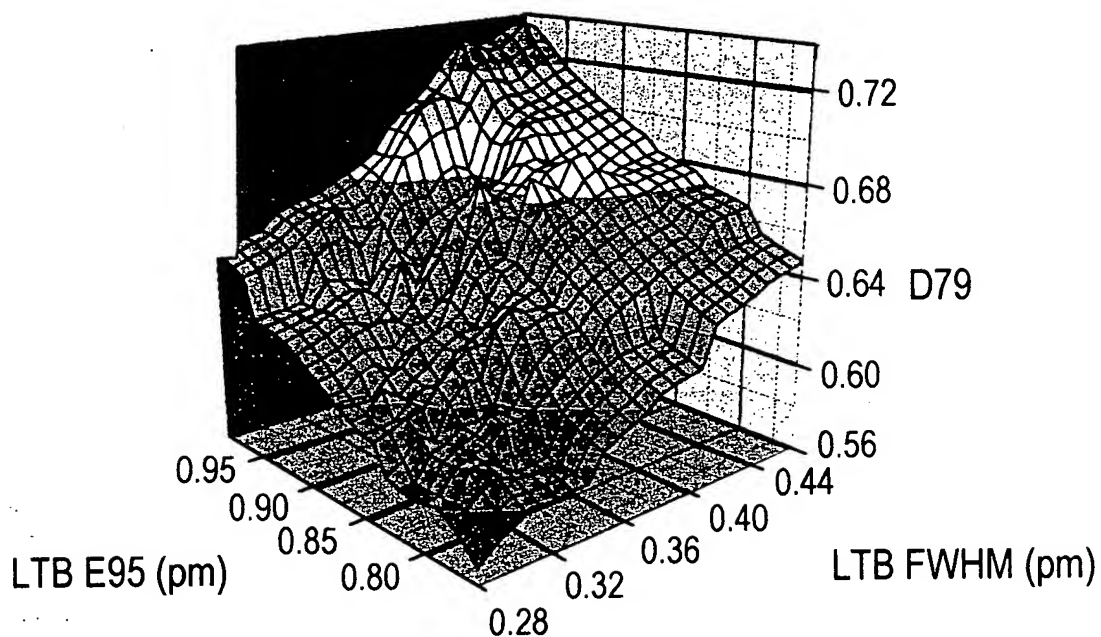
B 0.16575 ± 0.00041

C 0.67263 ± 0.0002

FIG. 3



Avg Behavior of D79 (28-36)/380 kPa
Correlation gridding, WM5645 ultralow wedge etalon



Data: Data2_D79

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 0.00008$

$R^2 = 0.89623$

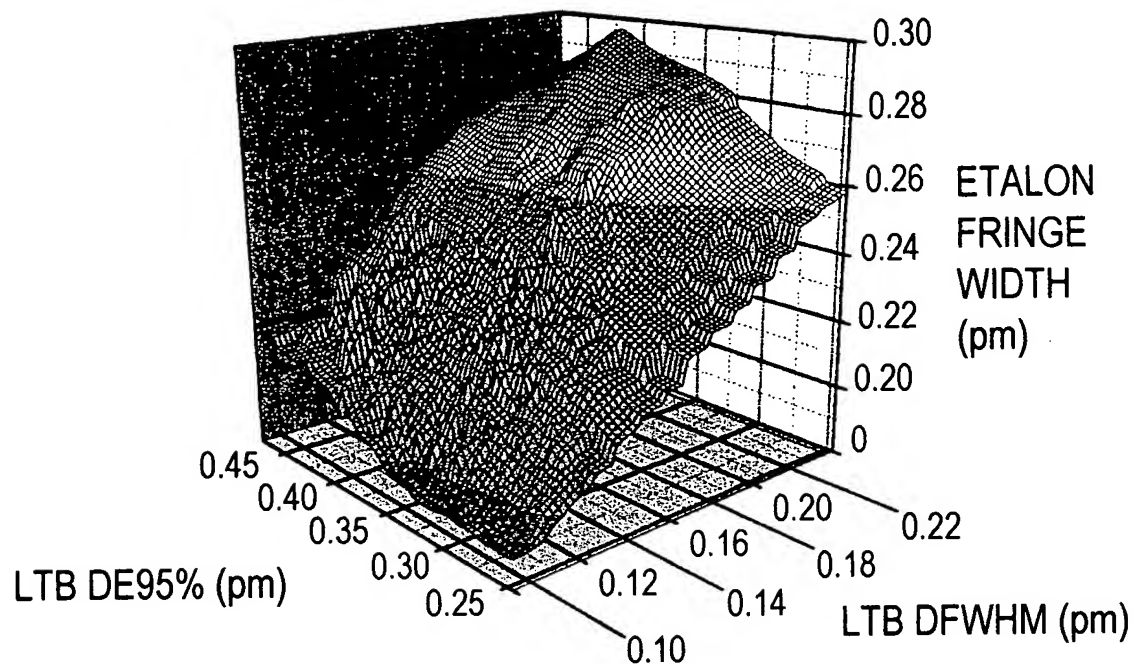
A 0.64495 ± 0.0166

B 0.20797 ± 0.01105

C 0.22983 ± 0.00719

FIG. 1

SAM Tracking Simulation 0.12 pm/20 pixel Bandpass



Data: Data5_SAM

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 7.8249\text{E-}6$

$R^2 = 0.95716$

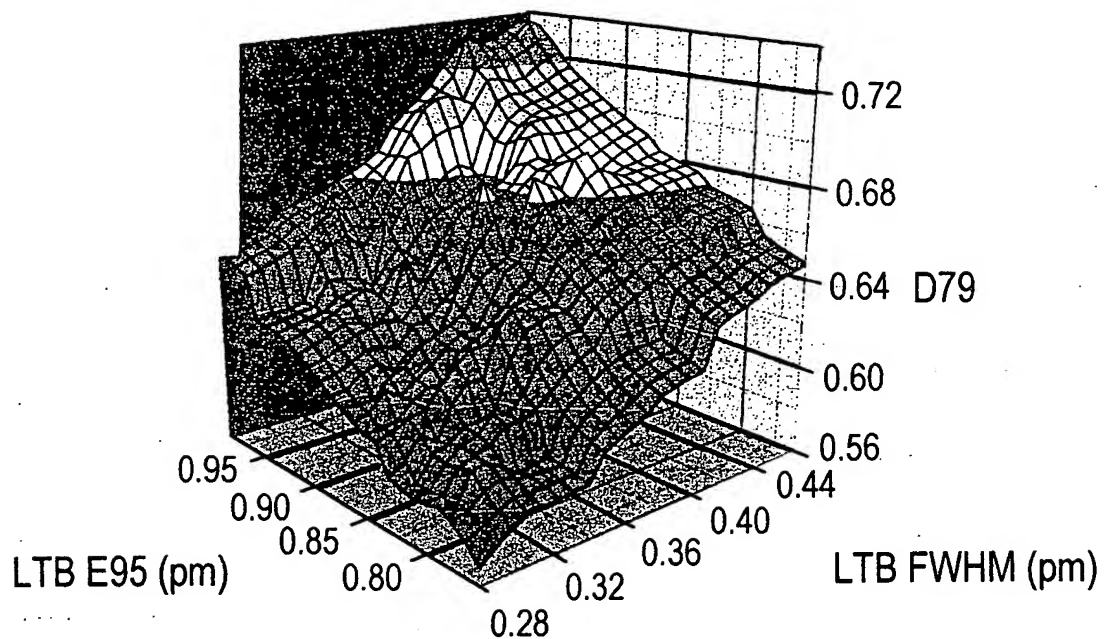
A 0.66704 ± 0.00221

B 0.08951 ± 0.00079

C 0.10172 ± 0.00039

FIG. 2

Avg Behavior of D79 (28-36)/380 kPa
Correlation gridding, WM5645 ultralow wedge etalon



Data: Data2_D79

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 0.00008$

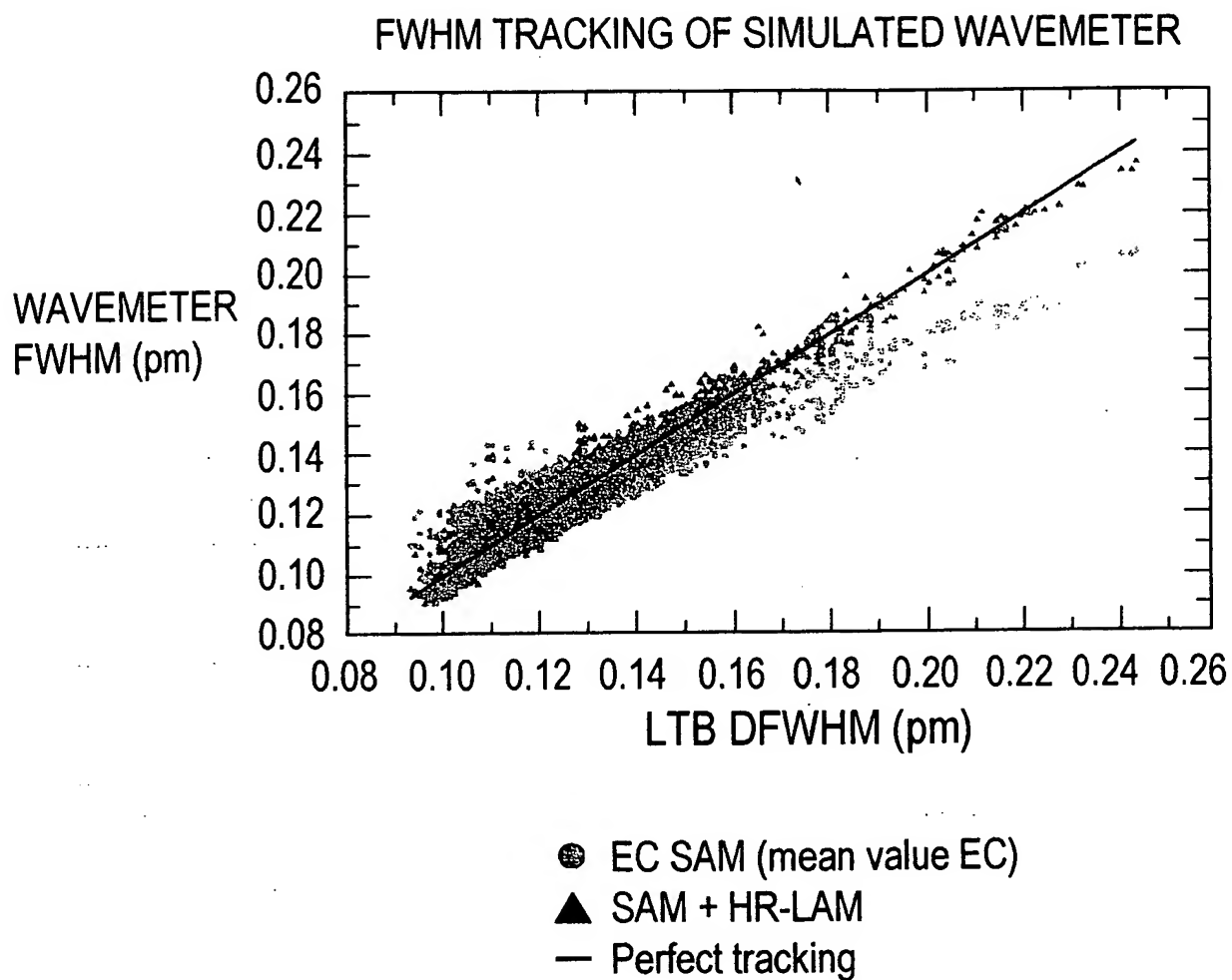
$R^2 = 0.89623$

A 0.64495 ± 0.0166

B 0.20797 ± 0.01105

C 0.22983 ± 0.00719

FIG. 1

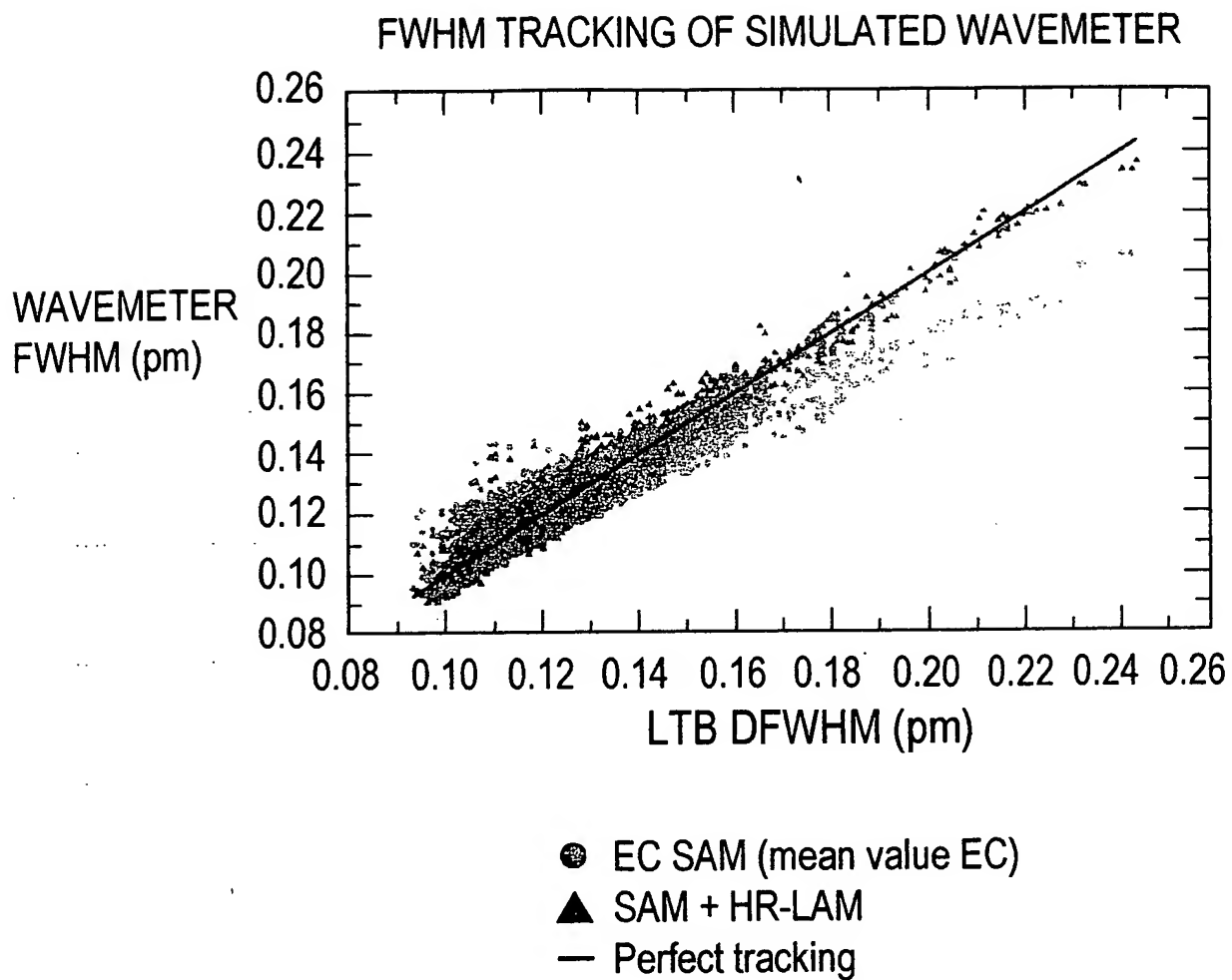


SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HR-LAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 5

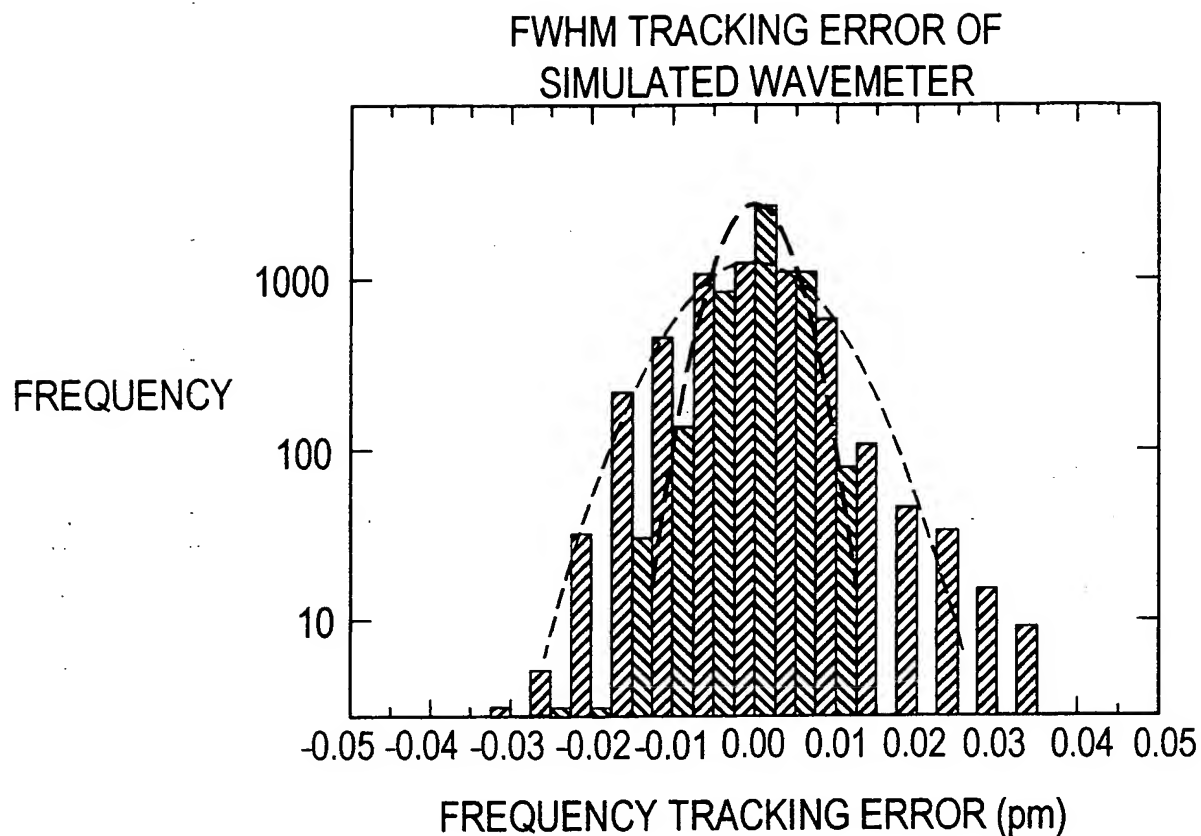


SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 5



▨ TRACKING RESIDUALS EC SAM VARIANCE = 7.9 fm

▩ TRACKING RESIDUALS SAM + HR LAM VARIANCE = 3.9 fm

SAM: 0.12 pm FWHM bandpass

20 pixels in FWHM

800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass

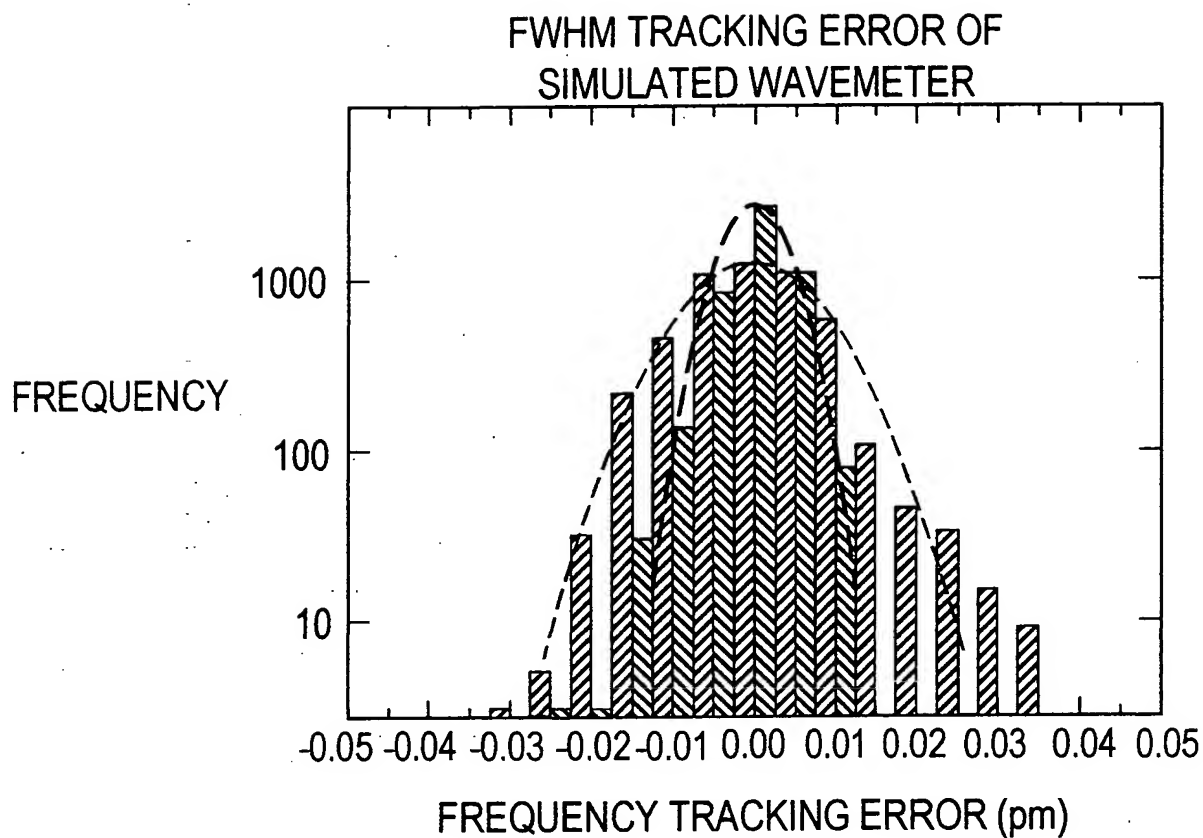
20 pixels in FWHM

800 pixel inspection range

6 pilot XLA-130 lasers

4814 spectra from Bandwidth Resonance scans

FIG. 6



SAM: 0.12 pm FWHM bandpass

20 pixels in FWHM

800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass

20 pixels in FWHM

800 pixel inspection range

6 pilot XLA-130 lasers

4814 spectra from Bandwidth Resonance scans

FIG. 6

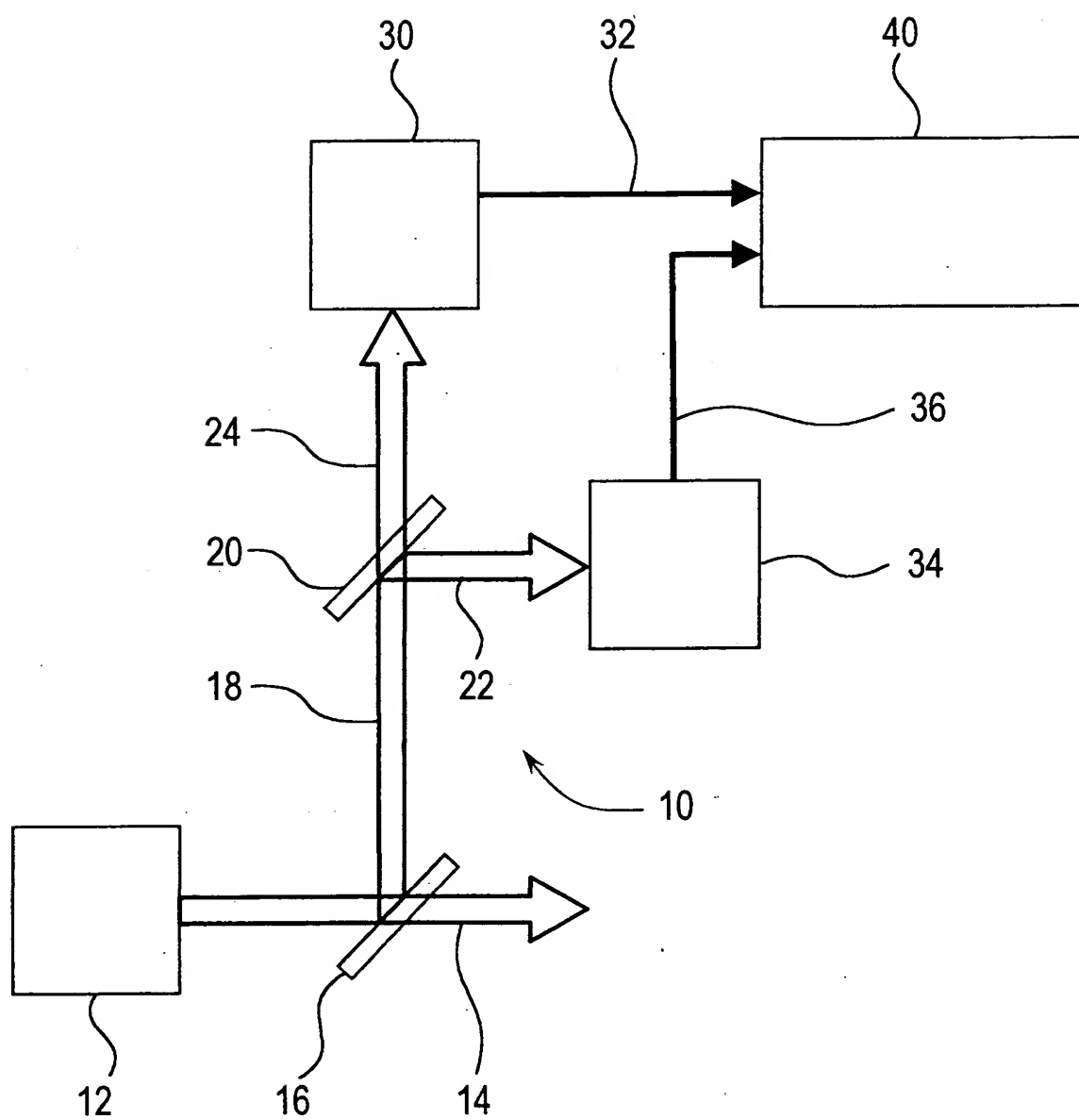


FIG. 4

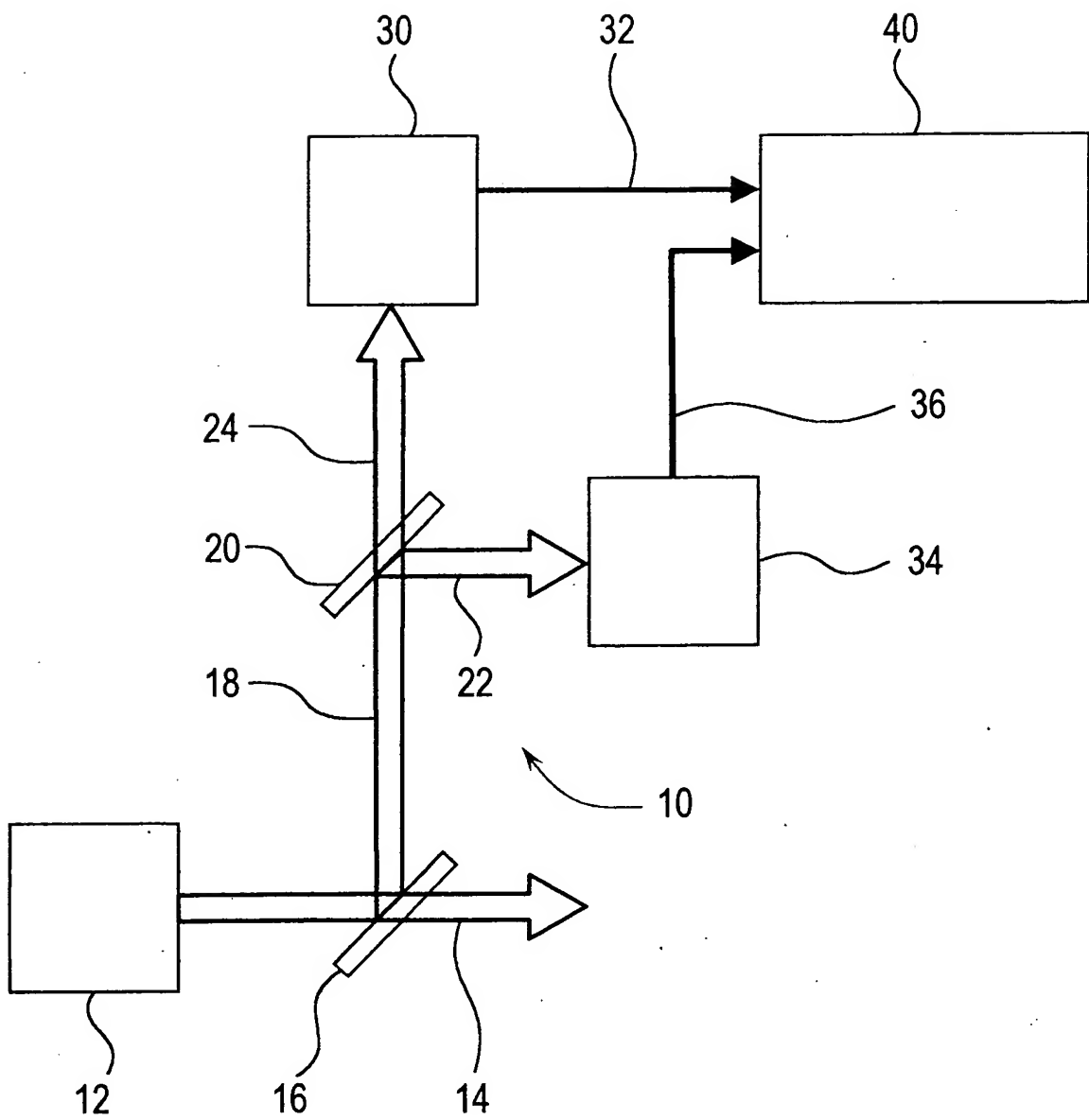
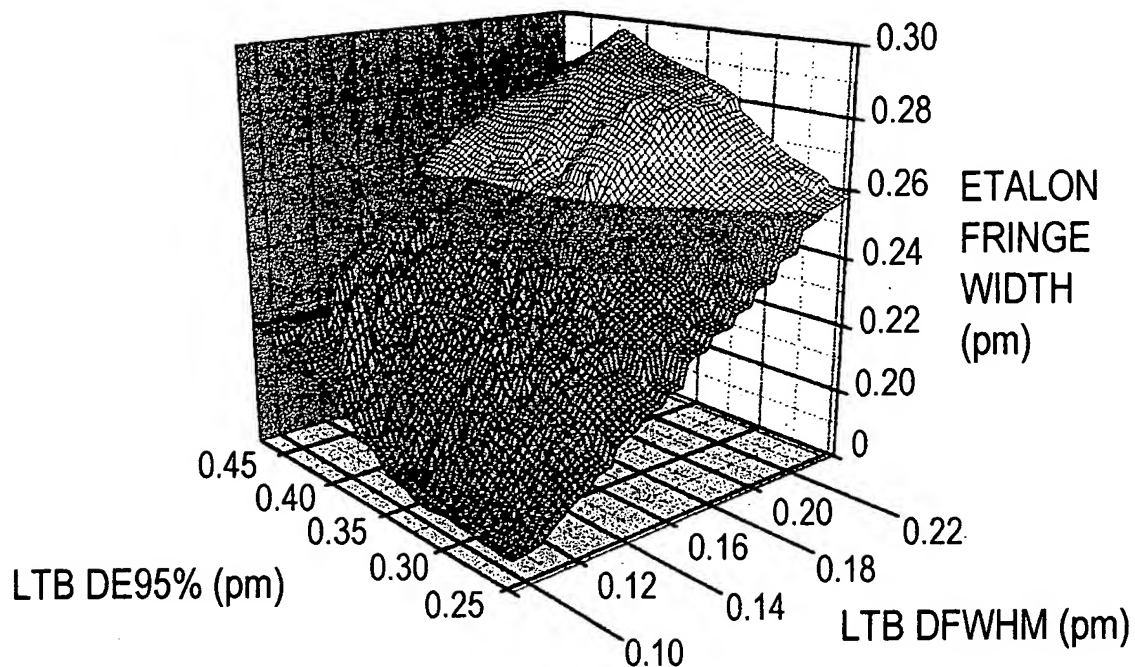


FIG. 4

SAM Tracking Simulation 0.12 pm/20 pixel Bandpass



Data: Data5_SAM

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 7.8249\text{E-}6$

$R^2 = 0.95716$

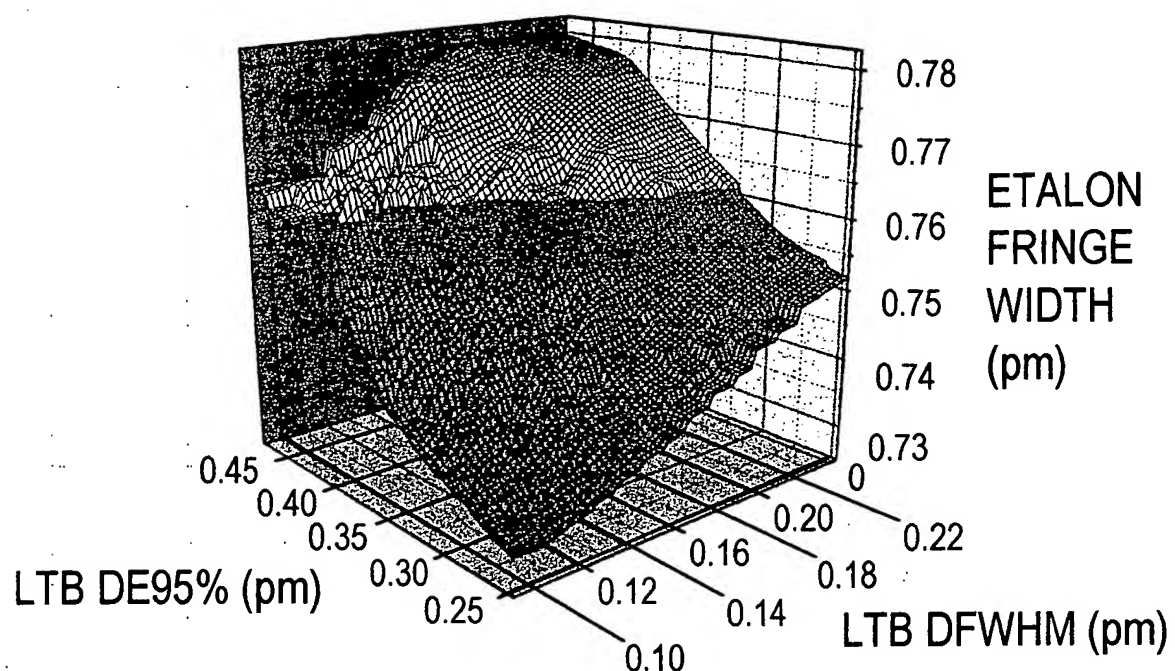
A 0.66704 ± 0.00221

B 0.08951 ± 0.00079

C 0.10172 ± 0.00039

FIG. 2

HiRes LAM Tracking Simulation 0.7 pm/20 pixel Bandpass



Data: Data5_HRLAM

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 2.0666\text{E-}6$

$R^2 = 0.97507$

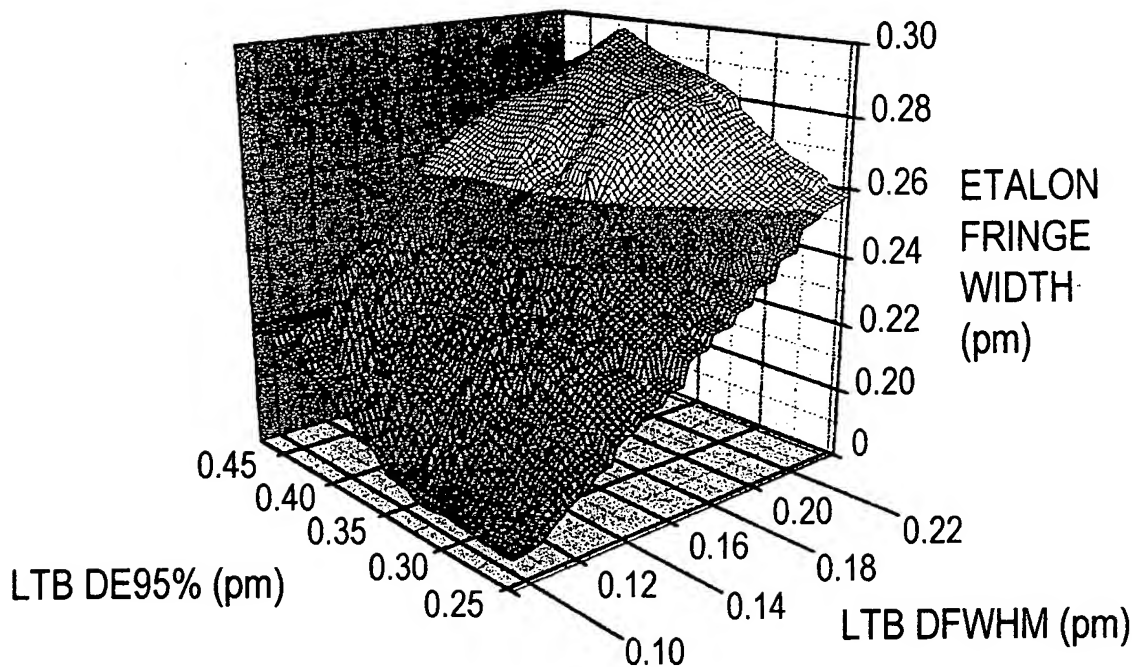
A 0.14483 ± 0.000114

B 0.16575 ± 0.00041

C 0.67263 ± 0.0002

FIG. 3

SAM Tracking Simulation 0.12 pm/20 pixel Bandpass



Data: Data5_SAM

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 7.8249\text{E-}6$

$R^2 = 0.95716$

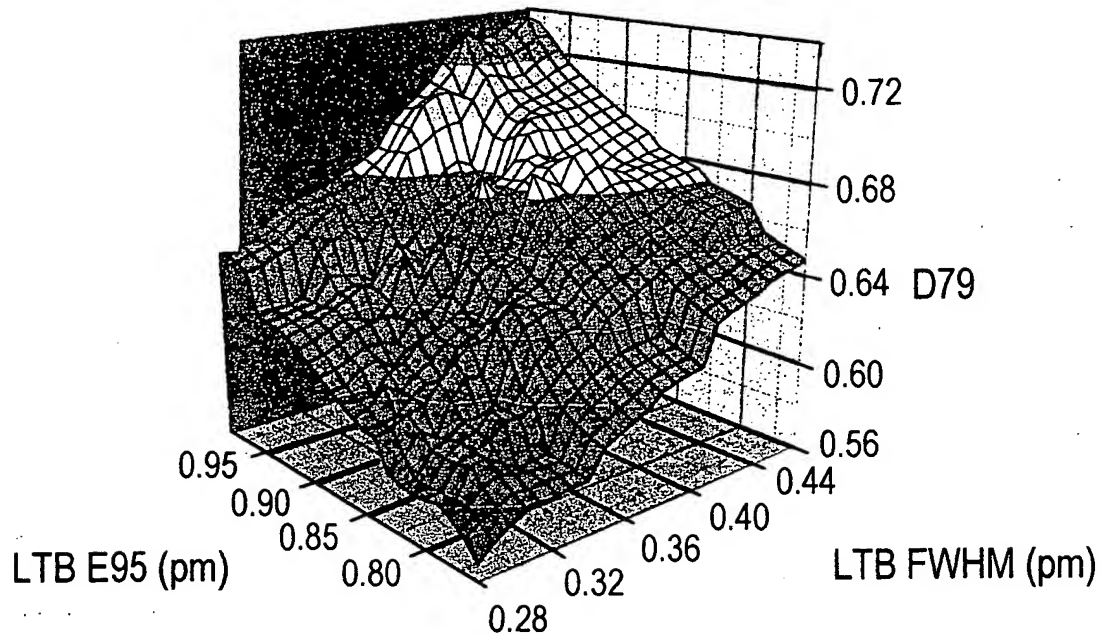
A 0.66704 ± 0.00221

B 0.08951 ± 0.00079

C 0.10172 ± 0.00039

FIG. 2

Avg Behavior of D79 (28-36)/380 kPa
Correlation gridding, WM5645 ultralow wedge etalon



Data: Data2_D79

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 0.00008$

$R^2 = 0.89623$

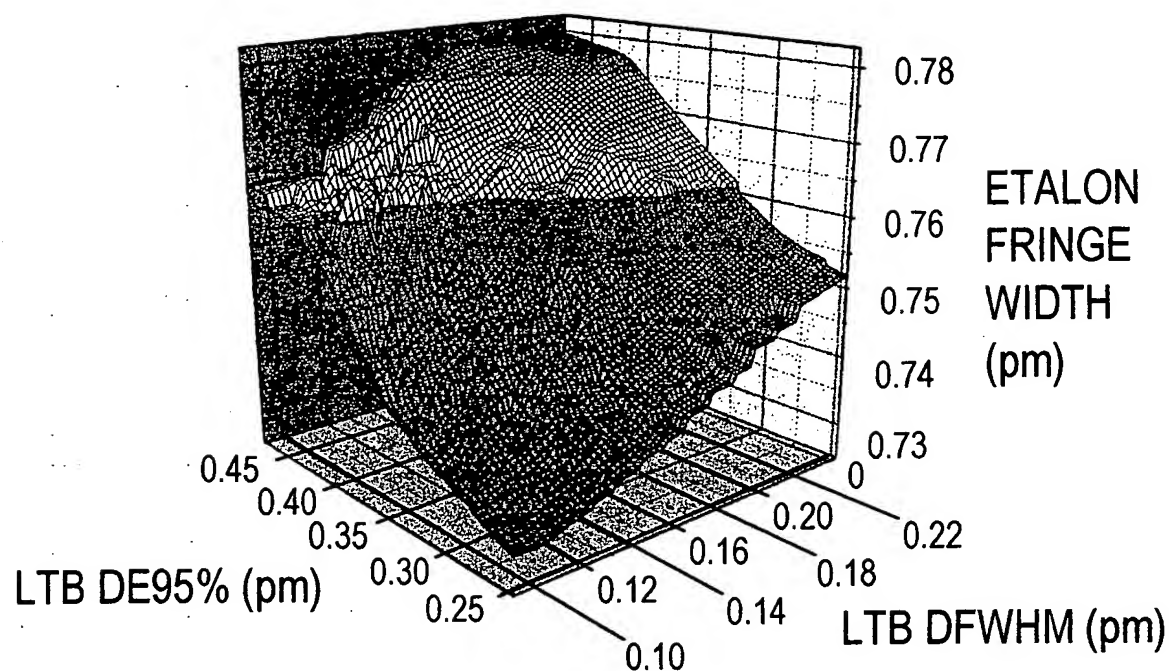
A 0.64495 ± 0.0166

B 0.20797 ± 0.01105

C 0.22983 ± 0.00719

FIG. 1

HiRes LAM Tracking Simulation 0.7 pm/20 pixel Bandpass



Data: Data5_HRLAM

Model: 3Dplane

Equation: $A \cdot x + B \cdot y + C$

Weighting:

Z No weighting

$\chi^2/\text{DoF} = 2.0666\text{E-}6$

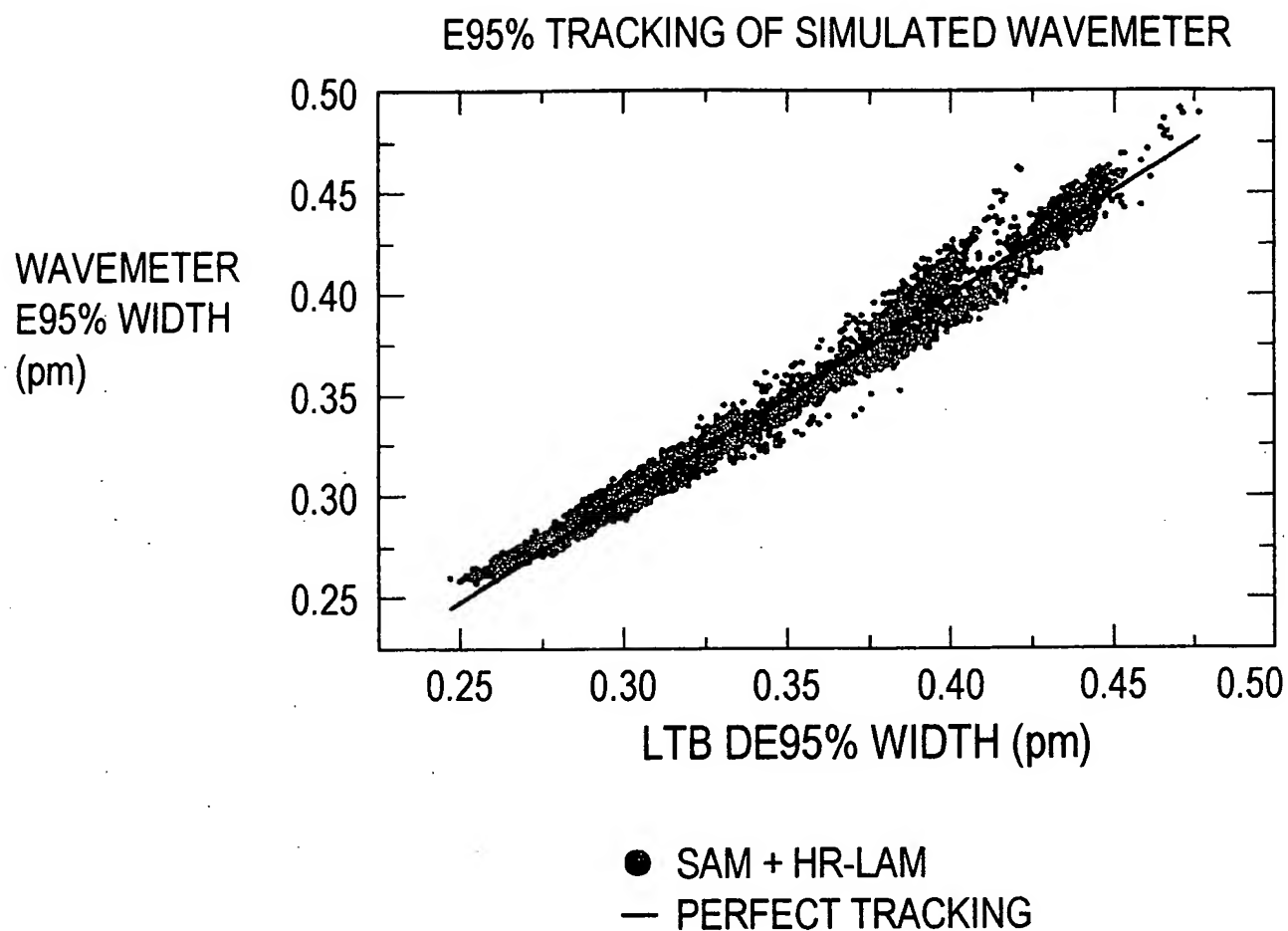
$R^2 = 0.97507$

A 0.14483 ± 0.000114

B 0.16575 ± 0.00041

C 0.67263 ± 0.0002

FIG. 3

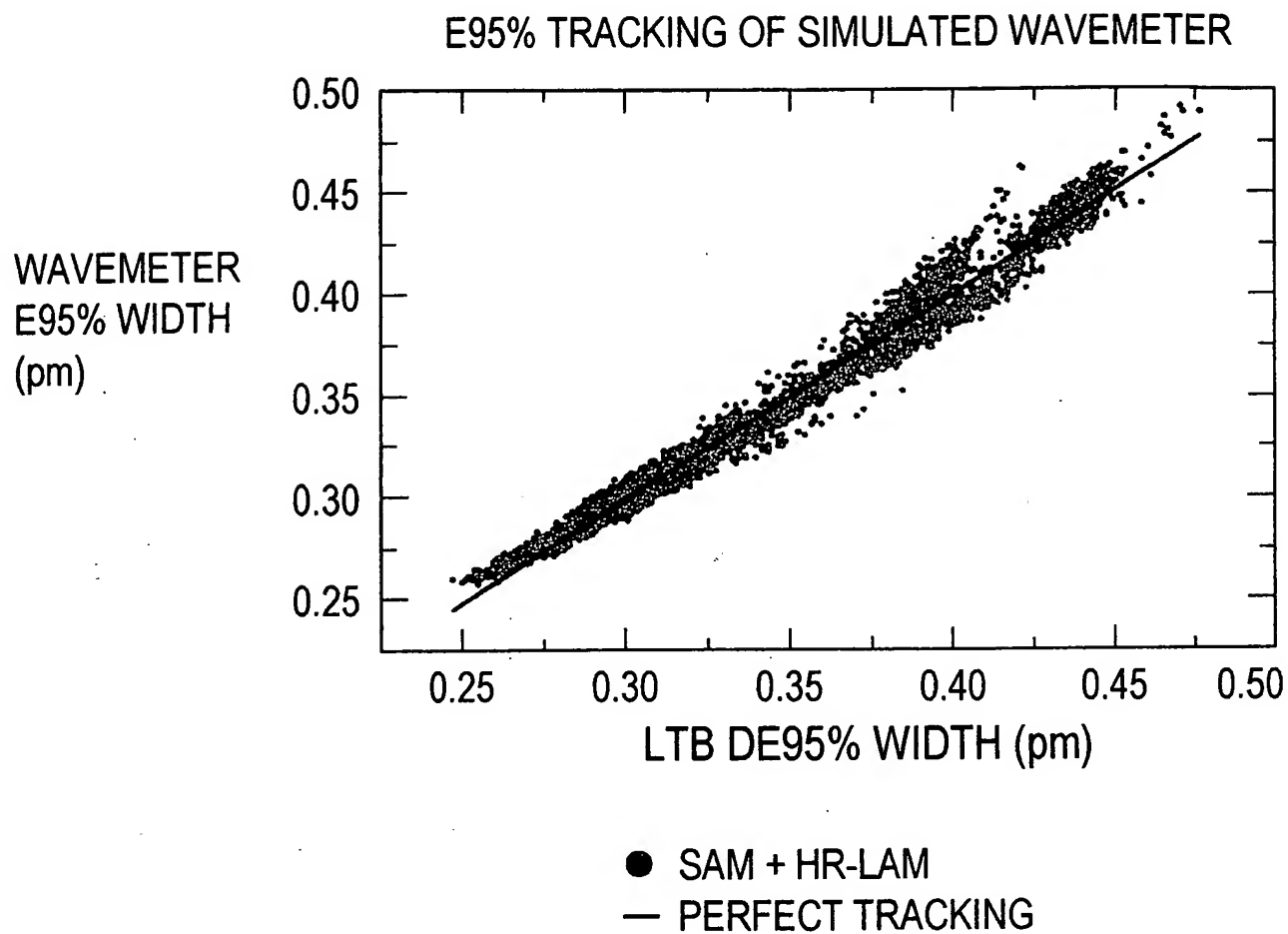


SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 7

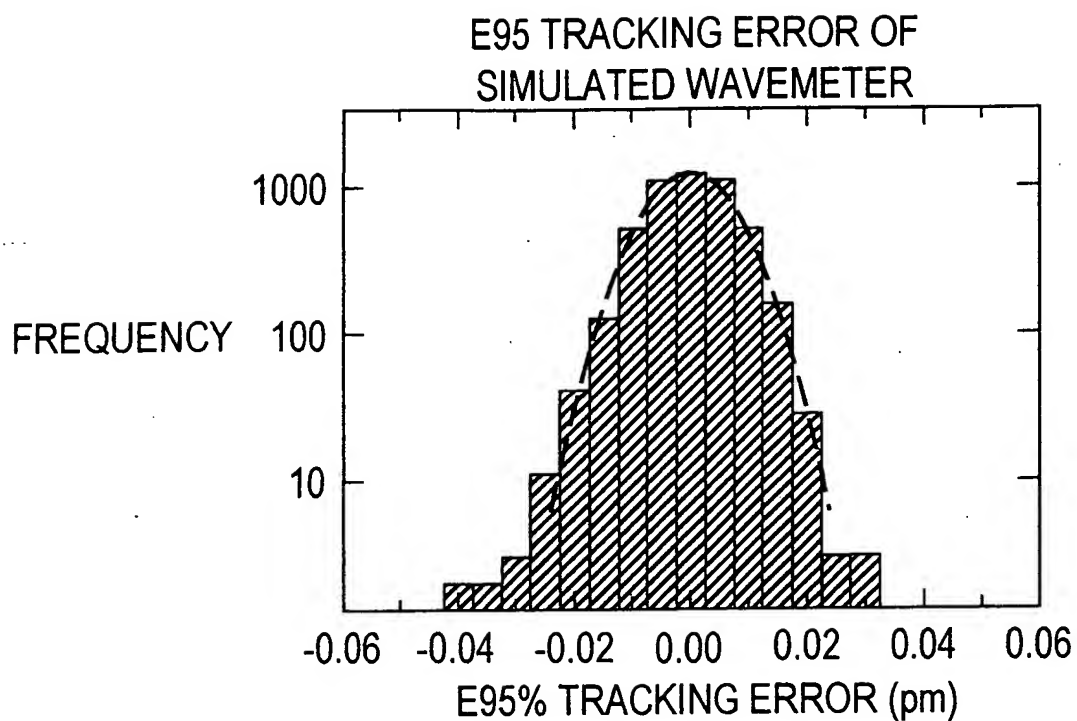


SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 7



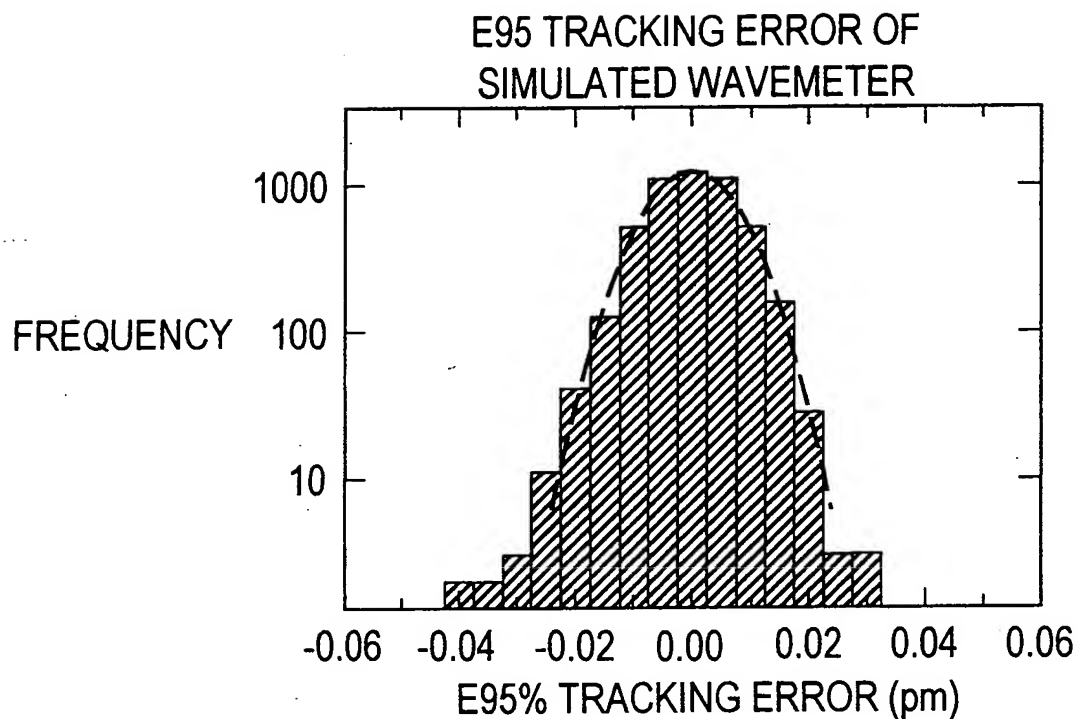
▨ TRACKING RESIDUALS SAM + HR LAM VARIANCE = 7.3 fm

SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 8



▨ TRACKING RESIDUALS SAM + HR LAM VARIANCE = 7.3 fm

SAM: 0.12 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

HRLAM: 0.70 pm FWHM bandpass
20 pixels in FWHM
800 pixel inspection range

6 pilot XLA-130 lasers
4814 spectra from Bandwidth Resonance scans

FIG. 8